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RULES PROCESSING TEAM

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Department of the Interior
Minerals Management Service
Attention: Rules Processing Team (RPT)
381 Elden Street, MS-4024
Herndon, Virginia 20170-4817

RE: Alternative Energy-Related Uses on Outer Continental Shelf – RIN 1010-AD30

To Whom It May Concern:

Thank you for the opportunity to comment on the Department of the Interior Minerals Management Service's ("MMS") Advance Notice of Proposed Rulemaking ("ANPR") on Alternative Energy-Related Uses on the Outer Continental Shelf ("OCS"). MMS is seeking comments on developing a program and regulations to manage renewable and other alternative energy projects on the outer continental shelf ("OCS"), and to permit alternative uses of existing OCS facilities. Section 388(a) of the Energy Policy Act of 2005 amended section 8 of the Outer Continental Shelf Lands Act ("OCSLA") (43 U.S.C. 1337) to authorize MMS to grant leases, easements or rights-of-way on the OCS for the development and support of energy resources from sources other than oil and gas and to allow for alternative uses of existing OCS (oil and gas) facilities.

At this time, Coastal Commission staff is able to provide brief, general comments on the ANPR. We will submit detailed comments later on MMS' proposed draft regulations.

Renewable Energy Projects

MMS anticipates future proposals for various types of renewable energy projects, including wind, wave, current and solar. Such activities would likely include infrastructure located in both federal and State waters. In California, these projects would be subject to both the federal consistency provisions of the federal Coastal Zone Management Act and the permitting requirements of the California Coastal Act.

While renewable energy can help meet our energy needs and make a real difference in battling global warming, locating it in the ocean can cause significant adverse marine resource impacts and other significant adverse coastal effects. For example, and depending on location, current state-of-the-art technology for wave energy requires a football-field size or larger array of devices in order to generate enough power to make a project economically feasible. MMS'

alternative energy program and regulations should therefore address the scale of build-out of these projects, the proportional scale of impacts and cumulative impacts. Much of the literature on wave energy we have reviewed to date oversimplifies and underestimates the potentially significant environmental issues associated with placing wave energy devices offshore. Potential impacts include:

- Interference with migrating marine mammals. Large offshore arrays have the potential to interfere with the migration patterns of marine mammals such as gray whales. If cables to shore are required, a spider web of cables (unless buried) could also pose a hazard to whales.
- Entrainment and impingement. Many wave energy devices make use of seawater. Structures that pump seawater are likely to entrain plankton, larvae, and other small organisms, removing them from the marine environment. Intake pipes can impinge, or trap, larger animals such as fish and invertebrates. A closed system is far superior to a design that uses once-through water circulation.
- Underwater noise. Wave energy devices could create significant noise levels in the ocean that are harmful or fatal to marine mammals.
- Interference with commercial fishing. A large array could impose a large permanent exclusion zone on commercial fishing activities. Any project-related underwater cables and pipelines can also lead to fishing gear snags and gear loss.
- Interference with navigation and other ocean users. Industrializing the marine environment with a large project footprint could conflict with navigation, recreational boating, and other ocean users, and increase the risk of vessel collisions and oil spills.
- Visual. Some wave energy designs employ towers that extend many feet above the ocean surface potentially causing industrial visual degradation of the coastline.
- Changes to sediment transport patterns. Depending on size and location, large arrays could result in changes to sediment transport patterns, beach nourishment, coastal erosion, and other coastal processes.
- Onshore impacts relating to infrastructure needs.

Offshore wind energy facilities could cause similar and additional impacts (e.g., bird strikes). We therefore strongly urge MMS to develop regulations that address these concerns, among others, and require that any project be sited and designed to avoid or minimize adverse environmental effects and conflicts with other ocean and coastal uses.

Conversion of Platforms to Reefs or Other Marine Related Purposes

The Coastal Commission has worked closely for many years with local, State, and federal agencies and industrial representatives on the potential conversion of platforms to artificial reefs ("rigs-to-reefs"). The Commission's involvement stems from its regulatory authority under the California Coastal Act and the federal Coastal Zone Management Act over the installation and decommissioning and removal of platforms and associated structures located in State and federal waters.

As a starting principle, Coastal Commission staff believes it is bad ocean conservation policy to abandon industrial waste in the ocean after the primary purpose of the industrial activity has been

served. The Coastal Commission routinely requires that energy infrastructure be removed from the ocean at the end of its operating life and that the site be restored.

We are familiar with the scientific community's research concerning whether platforms constitute "habitat" with diverse and robust habitat values and whether they function to actually increase the regional abundance of fish populations, or whether they are primarily fish attractors. At best, the science is inconclusive. A study conducted in 2000 by an independent committee of University of California scientists¹ found that the platforms represent so tiny a fraction of the available hard substrate in the Southern California Bight that their contribution to stocks of most reef organisms is likely to be small relative to the contribution from natural reefs. It further finds:

Surveys of platforms in California waters reveal that they harbor rich assemblages of marine organisms, including many fishes and invertebrates that typically occur on natural rocky reef substrates... Despite the fact that platforms can harbor abundant marine life, it is the platform's contribution to regional stocks of species that is the crucial metric for evaluating its ecological impact... At present, there is not any sound scientific evidence (that the Committee is aware of) to support the idea that platforms enhance (or reduce) regional stocks of marine species. (p. 4)

A subsequent 2003 MMS-funded study² of the ecological role of California offshore platforms concludes that some platforms could be important to regional fish production. The study's scientists found that higher densities of large rockfishes and lingcod at platforms, compared to natural outcrops, support the hypothesis that a platform can act as a de facto marine refuge. This may be explained, in part, by high fishing pressure on most rocky outcrops as compared to low fishing pressure at platform sites. Also, although densities on the small platform areas may be very high, the absolute numbers of individuals may be small relative to the regional population. This study, too, suggests that additional research is needed to understand the ecological performance of fishes living at platforms.

In the absence of sound scientific evidence that platforms enhance regional stocks of marine species, we are strongly opposed to "reefing" California offshore platforms. If, nevertheless, MMS pursues a California rigs-to-reef program on the OCS, a decision to allow a platform to be "reefed" instead of removed should be made case-by-case and based on site-specific and species-specific assessments. In addition, any platforms left in place should be placed in fully protected status (i.e., no fishing) until the question of production vs. attraction is resolved more definitively.

In addition, we have serious concerns about converting existing platforms to marine finfish aquaculture ("fish farms"). If ocean aquaculture is not done with extensive environmental

¹ Holbrook, Sally, et al. *Ecological Issues Related to Decommissioning of California's Offshore Production Platforms*. Report to the University of California Marine Council by the Select Scientific Advisory Committee on Decommissioning. University of California. November 8, 2000.

² Love, Milton S., et al. *The Ecological Role of Oil and Gas Production Platforms and Natural Outcrops on Fishes in Southern and Central California: A Synthesis of Information*. OCS Study MMS 2003-032. June 2003.

safeguards, it can cause serious environmental degradation. The main environmental effects of finfish aquaculture include:

- Biological Pollution. Fish that escape from fish pens may harm wild fish populations through competition and interbreeding, or by spreading diseases and parasites. Farming non-native species, transgenic or genetically modified fish should be prohibited.
- Fish Feed. Some types of aquaculture use large quantities of wild-caught fish as feed ingredients, thus potentially causing over-fishing of low-trophic "forage" fish such as anchovies and sardines. Alternatives to use of fishmeal and fish oil should be required.
- Organic Pollution and Eutrophication. Aquaculture can lead to nutrient loading through discharges of fish wastes and uneaten food. An aquaculture operator should be required to provide baseline benthic habitat assessments before installation, regular monitoring, and site remediation after the project has been removed.
- Chemical Pollution. The variety of chemicals used in aquaculture, such as antibiotics and pesticides, should be monitored frequently, and minimized.
- Use Conflicts. The physical structures can conflict with commercial and recreational fishing activities.

Any regulations developed to allow for open ocean finfish farms offshore California should thoroughly address these concerns in order to minimize adverse marine and coastal resource effects. We also strongly urge MMS to limit the artificial propagation, rearing and stocking to native fish only.

Thank you again for the opportunity to submit comments on this ANPR.

Sincerely,



ALISON DETTMER

Manager

Energy and Ocean Resources Unit